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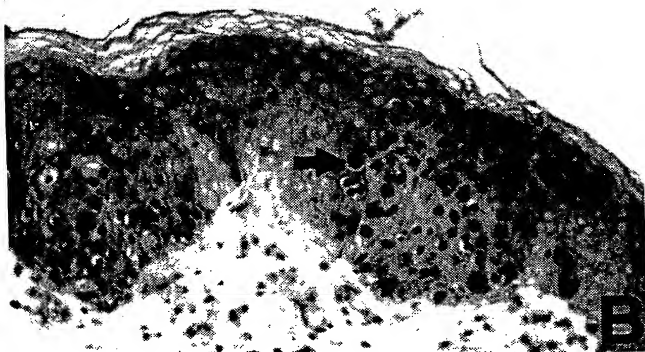
FIGURE 1A



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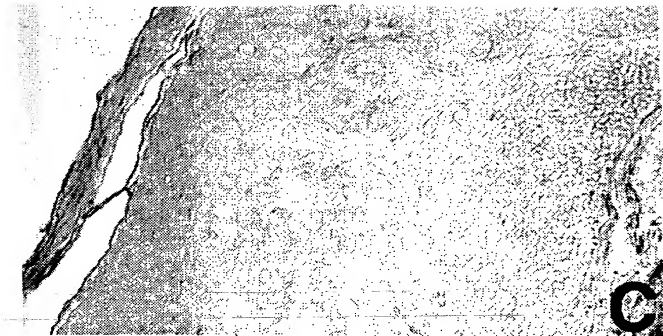
FIGURE 1B



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FIGURE 1C



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FIGURE 2A



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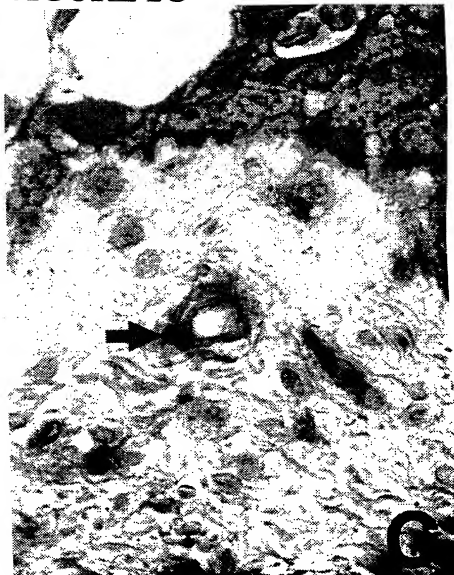
FIGURE 2B



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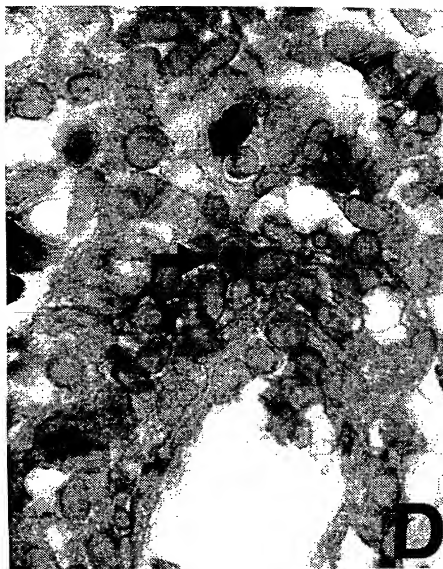
FIGURE 2C



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FIGURE 2D



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FIGURE 3A



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FIGURE 3B



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FIGURE 3C



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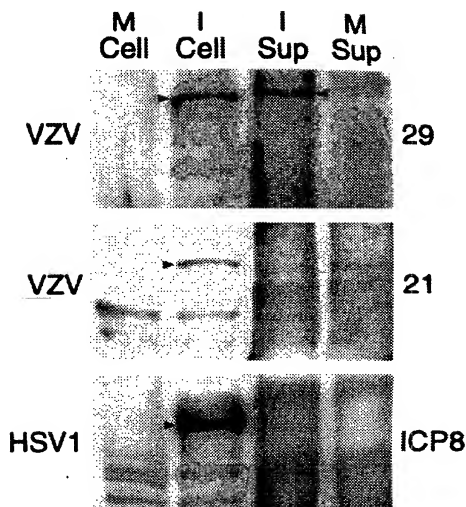
FIGURE 3D



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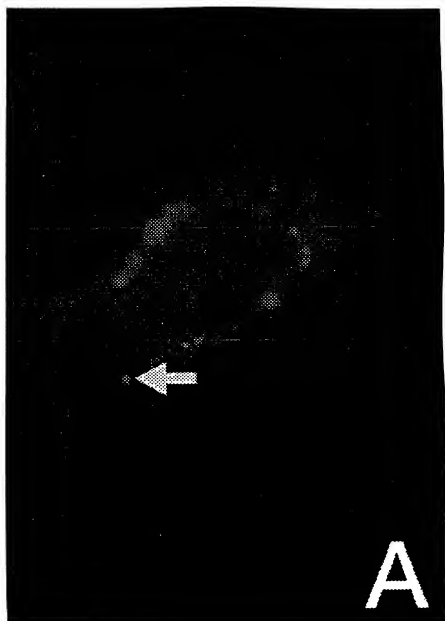
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FIGURE 4



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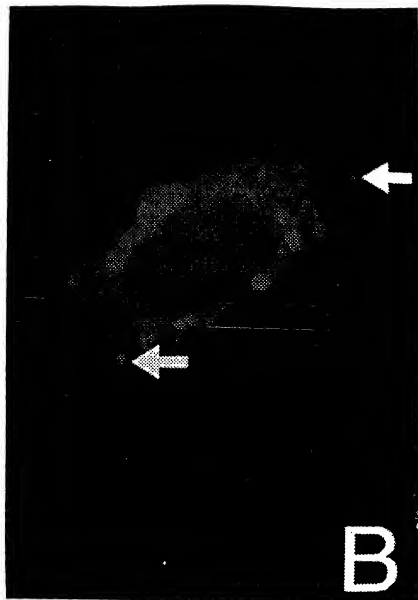
FIGURE 5A



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FIGURE 5B

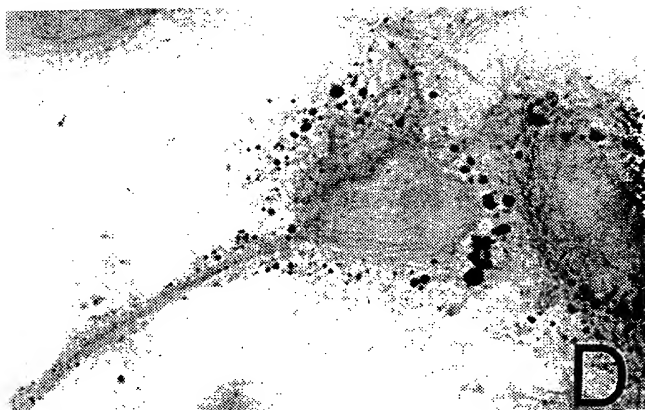


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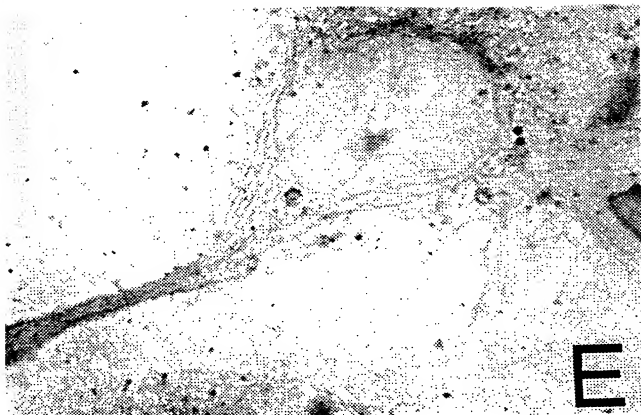
FIGURE 5D



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FIGURE 5E



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FIGURE 6-1

| | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 5' | ATG | GAA | AAT | ACT | CAG | AAG | ACT | GTG | ACA | 27 | GTG | CCC | ACG | GGG | CCC | CTG | GGT | TAC | GTT | 54 |
| | M | E | N | T | Q | K | T | V | T | V | P | T | G | P | L | G | Y | V | | |
| 63 | TAT | GCG | TGC | CGG | GTT | GAA | GAT | TTG | GAT | 81 | CTG | GAG | GAA | ATT | TCA | TTT | TTG | GCC | GCT | 108 |
| | Y | A | C | R | V | E | D | L | D | L | E | E | I | S | F | L | A | A | | |
| 117 | CGT | AGC | ACG | GAC | TCT | GAT | TTG | GCT | TTA | 135 | TTA | CCT | TTG | ATG | CGT | AAT | TTG | ACC | GTG | 162 |
| | R | S | T | D | S | D | L | A | L | L | P | L | M | R | N | L | T | V | | |
| 171 | GAA | AAA | ACT | TTT | ACA | TCC | AGC | CTG | GCG | 189 | GTG | GTT | TCT | GGA | GCA | CGC | ACT | ACG | GGT | 216 |
| | E | K | T | F | T | S | S | L | A | V | V | S | G | A | R | T | T | G | | |
| 225 | CTT | GCC | GGA | GCT | GGT | ATT | ACC | TTA | AAA | 243 | CTC | ACT | ACC | AGT | CAT | TTT | TAT | CCA | TCT | 270 |
| | L | A | G | A | G | I | T | L | K | L | T | T | S | H | F | Y | P | S | | |
| 279 | GTC | TTT | GTC | TTT | CAC | GGA | GGC | AAA | CAC | 297 | GTT | TTA | CCC | AGC | TCC | GCG | GCC | CCA | AAT | 324 |
| | V | F | V | F | H | G | G | K | K | H | V | L | P | S | S | A | A | P | N | |

FIGURE 6-2

| | | | | | |
|---|---------------------|-----------------|-------------|-----|-----|
| 333 | 342 | 351 | 360 | 369 | 378 |
| CTC ACA CGC | TGT AAC GCG GCT CGA | TTT GGG TTT TCA | CGC TGC CAA | | |
| L T R A C N A A R E R F G F S R C Q | | | | | |
| 387 | 396 | 405 | 414 | 423 | 432 |
| GGG CCT CCT GTT GAC GGT GCT GCT GAG ACG ACC GGC GCT GAG ATA TGC ACC CGC | | | | | |
| G P P V D G A V E T T G A E I C T R | | | | | |
| 441 | 450 | 459 | 468 | 477 | 486 |
| CIT GGA TTA GAG CCA GAA AAT ACA ATA TTA TAC TTG GTG GTC ACG GCA ITG TTT | | | | | |
| L G L E P E N T I L Y L V V T A L F | | | | | |
| 495 | 504 | 513 | 522 | 531 | 540 |
| AAG GAA GCC GTA TTT ATG TGC AAC GTG TTT CTG CAT TAT GGA GGA CTC GAT ATT | | | | | |
| K E A V F M C N V F L H Y G G L D I | | | | | |
| 549 | 558 | 567 | 576 | 585 | 594 |
| GTT CAT ATT AAC CAT GGG GAT GTT ATA CGT ATA CCG TTA TTT CCG GTA CAA CTT | | | | | |
| V H I N H G D V I R I P L F P V Q L | | | | | |
| 603 | 612 | 621 | 630 | 639 | 648 |
| TTC ATG CCC GAT GTT AAC CGT CTG GTA CCC GAC CCA TTC AAC ACT CAT CAC AGG | | | | | |
| F M P D V N R L V P D P F N T H H R | | | | | |

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FIGURE 6-3 657

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| TCT | ATC | GGA | GAG | GGT | TTT | GTA | TAC | CCA | ACA | CCC | TTT | TAT | AAC | ACC | GGG | TTG | TGC | 702 |
| S | I | G | E | G | F | V | Y | P | T | P | F | Y | N | T | G | L | C | |
| CAT | TTA | ATA | CAT | GAC | TGT | GTT | ATT | GCT | CCC | ATG | CCC | GTT | GCC | TTG | CGC | GTC | AGA | 756 |
| H | L | I | H | D | C | V | I | A | P | M | A | V | A | L | R | V | R | |
| AAT | GTA | ACT | GCC | GTC | GCC | CGA | GGA | GCG | GCC | CAC | CTT | GCT | TTT | GAT | GAA | AAT | CAC | 810 |
| N | V | T | A | V | A | R | G | A | A | H | L | A | F | D | E | N | H | |
| GAG | GGG | GCA | GTA | CTC | CCC | CCT | GAC | ATT | ACG | TAC | ACG | TAT | TTT | CAG | TCC | TCT | TCA | 864 |
| E | G | A | V | L | P | P | D | I | T | Y | T | Y | F | Q | S | S | S | |
| AGT | GGA | ACC | ACT | ACC | GCC | CGT | GGA | GCG | CGT | CGA | AAC | GAT | GTC | AAC | TCC | ACG | TCT | 918 |
| S | G | T | T | T | A | R | G | A | R | R | N | D | V | N | S | T | S | |
| AAG | CCT | AGC | CCA | TGG | GGG | GGG | TTT | GAA | AGA | CGG | TTG | GCG | TCT | ATT | ATG | GCC | GCT | 972 |
| K | P | S | P | S | G | G | F | E | R | R | L | A | S | I | M | A | A | |

FIGURE 6-4

| | | | | | |
|---|------|------|------|------|------|
| 981 | 990 | 999 | 1008 | 1017 | 1026 |
| GAC ACA GCC TTG CAC GAA GTT ATA TTC AAC ACT GGA ATT TAC GAA GAA ACT | | | | | |
| D T A L H A E V I F N T G I Y E E T | | | | | |
| 1035 | 1044 | 1053 | 1062 | 1071 | 1080 |
| CCA ACA GAT ATC AAA GAA TGG CCA ATG TTT ATA GGC ATG GAG GGC ACT TTG CCA | | | | | |
| P T D I K E W P M F I G M E G T L P | | | | | |
| 1089 | 1098 | 1107 | 1116 | 1125 | 1134 |
| AGG CTA AAC GCT CTG GGG TCA TAT ACC GCT CGT GTG GCC GGG GTC ATT GGT GCG | | | | | |
| R L N A L G S Y T A R V A G V I G A | | | | | |
| 1143 | 1152 | 1161 | 1170 | 1179 | 1188 |
| ATG GTT TTC AGC CCA AAT TCT GCG TTG TAT CTA ACT GAG GTG GAG GAT AGC GGS | | | | | |
| M V F S P N S A L Y L T E V E D S G | | | | | |
| 1197 | 1206 | 1215 | 1224 | 1233 | 1242 |
| ATG ACC GAA GCC AAG GAT GGG GGA CCG GGT CCA TCA TTT AAT CGA TTT TAC CAG | | | | | |
| M T E A K D G G P G P S F N R F Y Q | | | | | |
| 1251 | 1260 | 1269 | 1278 | 1287 | 1296 |
| TTT GCC GGA CCT CAT TTA GCT GCG AAT CCC CAA ACA GAT CCA GAT GGC CAC GTT | | | | | |
| F A G P H L A A N P Q T D R D G H V | | | | | |
| 1305 | 1314 | 1323 | 1332 | 1341 | 1350 |
| CTA TCC AGT CAG TCT ACG GGT TCA AAC ACA GAG TTT ACC GTG GAT TAT TTG | | | | | |
| L S S Q S T G S S N T E F S V D Y L | | | | | |

FIGURE 6-5

| | | | | | | | | | | | | | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 1359 | GCA | CTC | ATT | TGT | GGA | TTT | GGA | GCA | CCC | 1377 | CTG | TTG | GCG | GGA | CTG | CTT | TTT | TAT | CTA | 1404 |
| | A | L | I | C | G | F | G | A | P | L | L | A | R | L | L | F | Y | L | | |
| 1413 | GAA | CGC | TGT | GAC | GCT | GGT | GCG | TTT | ACA | 1431 | GGG | GCT | CAC | GGG | GAT | GCG | TTA | AAA | TAT | 1458 |
| | E | R | C | D | A | G | A | F | T | G | G | H | G | D | A | L | K | Y | | |
| 1467 | GTT | ACG | GGG | ACC | TTT | GAC | TCT | GAA | ATT | 1485 | CCA | TGT | AGT | TTA | TGT | GAA | AAA | CAC | ACG | 1512 |
| | V | T | G | T | F | D | S | E | I | P | C | S | L | C | E | K | H | T | | |
| 1521 | CGG | CCG | GTA | TGC | GCT | CAC | ACA | ACA | GTA | 1539 | CAC | GGA | CTT | AGA | CAG | CGC | ATG | CCG | GGA | 1566 |
| | R | P | V | C | A | H | T | T | V | H | R | L | R | Q | R | M | P | R | | |
| 1575 | TTT | GGA | CAA | GCC | ACC | CGT | CAA | CCT | ATT | 1593 | GCG | GTG | TTT | GGA | ACA | ATG | AAC | AGC | CAA | 1620 |
| | F | G | Q | A | T | R | Q | P | I | G | V | F | G | T | M | N | S | Q | | |
| 1629 | TAT | AGC | GAC | TGC | GAT | CCT | CTA | GGA | AAC | 1647 | TAT | GCT | CCA | TAT | TTA | ATC | CTT | CGA | AAA | 1674 |
| | Y | S | D | C | D | P | L | G | N | Y | A | P | Y | L | I | L | R | K | | |
| 1683 | CCC | GGG | GAT | CAA | ACG | GAA | GCA | GCA | AAG | 1701 | GCA | ACC | ATG | CAG | GAC | ACT | TAT | AGG | GCT | 1728 |
| | P | G | D | Q | T | E | A | A | X | A | T | M | Q | D | T | Y | R | A | | |

FIGURE 6-6

| | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|
| 1737 | 1746 | 1755 | 1764 | 1773 | 1782 |
| ACA CTA GAA | CGC TTG TTT | ATC GAT CTA | GAA CAA GAG | CGA CTA CTG | GAT CGC GGT |
| T L E R | L F I D | L E Q E | R L L D | R R G | |
| 1791 | 1800 | 1809 | 1818 | 1827 | 1836 |
| GCC CCA TGT | TCT TCC GAG | GGA CTA TCG | TCT GTC ATT | GTG GAT CAT | CCA ACG TTT |
| A P C S | S E G L | S S V I | V D H P | T T F | |
| 1845 | 1854 | 1863 | 1872 | 1881 | 1890 |
| CGT CGC ATA | TTA GAC ACA | CTG CGT GCG | CGT ATA GAA | CAG ACA ACA | CAA TTT |
| R R I L | D T L R | A R I E | Q T T Q | F F | |
| 1899 | 1908 | 1917 | 1926 | 1935 | 1944 |
| ATG AAA GTG | TTG GTT GAG | ACC CGC GAT | TAT AAG ATC | CGT GAA GGA | TTA TCC GAA |
| M K V L | V E T R | D Y K I | R E G L | S E | |
| 1953 | 1962 | 1971 | 1980 | 1989 | 1998 |
| GCC ACC CAT | TCA ATG GCG | TTA ACG TTT | GAT CCA TAC | TCA GCA GCA | TTT TGT CCC |
| A T H S | M A L T | F D P Y | S G A F | C P | |
| 2007 | 2016 | 2025 | 2034 | 2043 | 2052 |
| ATT ACC AAT | TTT TTA GTT | AAA CGA ACA | CAC CTA GCC | GTG GTA CAA | GAC TTA GCA |
| I T N F | L V K R | T H L A | V V Q D | L A | |

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FIGURE 6-7

| | | | | | |
|---|------|------|------|------|------|
| 2061 | 2070 | 2079 | 2088 | 2097 | 2106 |
| TTA AGC CAA TGT CAT TGT GTA TTT TAC GGA CAG CAA GTT GAG GGG CGG AAC TTT | | | | | |
| L S Q C C H C V F Y G Q Q V E G R N F | | | | | |
| 2115 | 2124 | 2133 | 2142 | 2151 | 2160 |
| CGT AAC CAA TTC CAA CCT GTT TTG CGG CGG CGT TTT GTT GAC CTG TTT AAT GCG | | | | | |
| R N Q F Q P V L R R R F V D L F N G | | | | | |
| 2169 | 2178 | 2187 | 2196 | 2205 | 2214 |
| GCG TTT ATA TCA ACA CGC TCT ATA ACC GTA ACA TTA TCT GAA GGT CCT GTA TCC | | | | | |
| G F I S T R S I T V T L S E G P V S | | | | | |
| 2223 | 2232 | 2241 | 2250 | 2259 | 2268 |
| GCC CCA AAT CCG ACA TTG GGA CAA GAC GCG CCC GCG GGG CGT ACC TTT GAT GGG | | | | | |
| A P N P T L G Q D A F A G R T F D G | | | | | |
| 2277 | 2286 | 2295 | 2304 | 2313 | 2322 |
| GAT TTA GCG CGC GTA AGC GTG GAA GTT AAT CCG GAT ATA CCA GTT AAA AAT AGG | | | | | |
| D L A R V S V E V I R D I R V K N R | | | | | |
| 2331 | 2340 | 2349 | 2358 | 2367 | 2376 |
| GTC GTT TTT TCA GGT AAC TGT ACA AAT CTC TCT GAG GCA GCC CGG GCA AGG CTT | | | | | |
| V V F S S G N C T N L S E A A R A R L | | | | | |
| 2385 | 2394 | 2403 | 2412 | 2421 | 2430 |
| GTA GGC CTT GCA AGT GCG TAC CAA GCG CAA GAA AAA AGA GTG GAT ATG TTA CAC | | | | | |
| V G L A S A Y Q R Q E K R V D M L H | | | | | |

FIGURE 6-8

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| | | | | | | | | | | | | | | | | | | |
|------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|---|---|---|---|---|---|---|
| 2439 | GGG | CCC | CTA | GGG | TTT | TTG | 2448 | 2457 | 2466 | 2475 | 2484 | | | | | | | |
| | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | | | | | | |
| | G | A | L | G | F | L | L | K | Q | F | H | G | L | L | F | P | R | G |
| 2493 | ATG | CCA | CCA | AAC | AGT | AAA | 2502 | 2511 | 2520 | 2529 | 2538 | | | | | | | |
| | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | | | | | | |
| | M | P | P | N | S | K | S | P | N | P | Q | W | F | W | T | L | L | Q |
| 2547 | CGC | AAC | CAG | ATG | CCG | GCA | 2556 | 2565 | 2574 | 2583 | 2592 | | | | | | | |
| | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | | | | | | |
| | R | N | Q | M | P | A | D | K | L | T | H | E | E | I | T | I | A | |
| 2601 | GCT | GTT | AAA | CGG | TTT | ACC | 2610 | 2619 | 2628 | 2637 | 2646 | | | | | | | |
| | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | | | | | | |
| | A | V | K | R | F | T | E | E | Y | A | A | I | N | F | I | N | L | P |
| 2655 | CCA | ACC | TGC | ATA | GCA | GAA | 2664 | 2673 | 2682 | 2691 | 2700 | | | | | | | |
| | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | | | | | | |
| | P | T | C | I | G | E | L | A | Q | F | Y | M | A | N | L | I | L | K |
| 2709 | TAC | TGC | GAT | CAT | TCA | CAG | 2718 | 2727 | 2736 | 2745 | 2754 | | | | | | | |
| | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | | | | | | |
| | Y | C | D | H | S | Q | Y | L | I | N | T | L | T | S | I | I | T | G |

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FIGURE 6-9

| | | | | | |
|---|---|------|------|------|------|
| 2763 | 2772 | 2781 | 2790 | 2799 | 2808 |
| GCC AGG CGC | CCG GAC CCA TCA TCC GTT TTG CAT TGG ATT CGT AAA GAT GTC | | | | |
| A R R P R D P S S V L H W I R K D V | | | | | |
| 2817 | 2826 | 2835 | 2844 | 2853 | 2862 |
| ACG TCC GCC GCG GAC ATA GAA ACC CAA GCA AAG GCG CTT CTT GAA AAA ACG GAA | | | | | |
| T S A A D I E T Q A K A L L E K T E | | | | | |
| 2871 | 2880 | 2889 | 2898 | 2907 | 2916 |
| AAC TTA CCG GAA TTA TGG ACT ACG GCT TTT ACT TCA ACT CAT TTA GTC CCG GCG | | | | | |
| N L P E L W T T A F T S T H L V R A | | | | | |
| 2925 | 2934 | 2943 | 2952 | 2961 | 2970 |
| GCC ATG AAT CAA CGT CCC ATG GTC GTT TTA GGA ATA AGC ATT AGT AAA TAT CAC | | | | | |
| A M N Q R P M V V L G I S I S K Y H | | | | | |
| 2979 | 2988 | 2997 | 3006 | 3015 | 3024 |
| GGA GCG GCA GGA AAC AAC CCG GTC TTT CAG GCA GGG AAT TGG AGC GGT TTA AAC | | | | | |
| G A A G N N R V F Q A G N W S G L N | | | | | |
| 3033 | 3042 | 3051 | 3060 | 3069 | 3078 |
| GCG GGT AAA AAT GTA TCC CCG CTA TTT ACA TTT GAT CCG ACT CCG CGT TTT ATA | | | | | |
| G G K N V C P L F T F D R T R R F I | | | | | |
| 3087 | 3096 | 3105 | 3114 | 3123 | 3132 |
| ATA GCA TGT CCT AGA GGA GGT TTT ATC TGC CCC GTA ACA GGT CCC TCG TCG GGA | | | | | |
| I A C P R G G F I C P V T G P S S G | | | | | |

FIGURE 6-10

| | | | | | | |
|-------------------------------------|---|------|------|------|------|------|
| 3141 | AAT CGA GAA ACC ACC CTA TCC GAC CAA GTT CGC GGT ATA ATT GTC AGT GGC GGG | 3150 | 3159 | 3168 | 3177 | 3186 |
| N R E T T L S D Q V R G I I V S G G | | | | | | |
| 3195 | GCC ATG GTT CAA TTA GCC ATA TAC GCC ACG GTT GTG CGT GCA GTG GGC GCT CGA | 3204 | 3213 | 3222 | 3231 | 3240 |
| A M V Q L A I Y A T V V R A V G A R | | | | | | |
| 3249 | GCA CAA CAT ATG GCA TTT GAC GAC TGG TTA AGT CTT ACA GAC GAT GAG TTT TTA | 3258 | 3267 | 3276 | 3285 | 3294 |
| A Q H M A F D D W L S L T D D E F L | | | | | | |
| 3303 | GCC AGA GAC TTG GAG GAG TTA CAC GAC CAG ATT ATC CAA ACC CTG GAA ACG CCC | 3312 | 3321 | 3330 | 3339 | 3348 |
| A R D L E E L H D Q I I Q T L E T P | | | | | | |
| 3357 | TGG ACC GTA GAA GGC GCT CTA GAA GCA GTA AAG ATT CTA GAT GAA AAA ACG ACA | 3366 | 3375 | 3384 | 3393 | 3402 |
| W T V E G A L E A V K I L D E K T T | | | | | | |
| 3411 | GCG GGA GAT GGG GAA ACC CCC ACA AAC CTA GCA TTT AAT TTT GAT TCT TGT GAA | 3420 | 3429 | 3438 | 3447 | 3456 |
| A G D G E T P T N L A F N F D S C E | | | | | | |

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FIGURE 6-11

| | | | | | |
|---|------|------|------|------|------|
| 3465 | 3474 | 3483 | 3492 | 3501 | 3510 |
| CCA AGC CAT GAC ACC ACA TCT AAC GTA TTA AAC ATT TCA GGG TCA AAC ATT TCA | | | | | |
| P S H D T T S N V L N I S G S N I S | | | | | |
| 3519 | 3528 | 3537 | 3546 | 3555 | 3564 |
| GGG TCA ACT GTC CCT GGT CTT AAA CGA CCC CCC GAA GAT GAC GAA CTC TTT GAT | | | | | |
| G S T V P G L K R P P E D D E L F D | | | | | |
| 3573 | 3582 | 3591 | 3600 | 3609 | |
| CYT AGT GGT ATT CCC ATA AAA CAT GGG AAC ATT ACA ATG GAA ATG A 3' | | | | | |
| L S G I P I K H G N I T M E M | | | | | |